A boggy question: differing views of wetlands in 19th century Melbourne

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Abstract
The site of European settlement in the Port Phillip region was a place of many swamps. For the Indigenous population these features were essential to their way of life, because of the wide diversity of foodstuffs and raw materials they provided. They were the main support for the meetings of large numbers of the Kulin nation that occurred regularly around the top of the Bay. As the immigrant population of Melbourne increased so too were the indigenes excluded from their customary haunts, and were thus eventually unable to maintain their traditional ways. The immigrant settlers viewed the swamps in a different light: they were a source of disease, and of such little regard they could be used as dumping grounds. As Melbourne grew and the need to improve commercial facilities increased, these areas were progressively transformed into a range of other, more culturally useful forms. The ways in which these wetlands played a part in the histories of both Indigenous and settler populations are examined. (*The Victorian Naturalist* **131** (4) 2014, 96–105)

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Introduction

Swamps or wetlands[1]—whatever term one applies, terrestrial features that comprise more or less permanent but relatively shallow water—have had an interesting conceptual place in western cultures. Perhaps this is because, unlike other parts of the landscape, they did not fit easily into the natural classification of environment as either land or water (Giblett 1996). Wetlands could not be farmed or built upon; but neither could they be put to the same uses as rivers, lakes or the ocean. Historically, this ambivalence has shaped European ways of thinking about such areas and been a major influence in the ways Europeans have interacted with them.

Perceptions of swamps as sources of airborne disease, and as unproductive areas with no potential for useful development were embedded in European culture. Such attitudes had evolved in the countries of origin over many generations but they were given new ground within which to grow following European intrusion into Aboriginal environments. There, the immigrants' perceptions of wetlands—indeed, of the whole of nature—came face to face with a completely different set of beliefs, held by the people whose land was being invaded. Although none of these newcomers realised it, in all parts of the continent Indigenous people viewed all landscape features within their estates, including wetlands, as fundamental and necessary parts of their very existence. Over thousands of years Indigenous Australians had developed a view of their world that saw nature and culture as indivisible parts of the same series of creative acts (Maddock 1974).

With these markedly contrasting perspectives in mind, this paper will consider the uses to which the many wetlands in the Melbourne area have been put. This examination aims at elucidating the place and impact of wetlands in the history of the area, and of providing insights into the differing ethnic perspectives on Melbourne's many wetlands.

The immediate area of Melbourne is a useful historical context in which to consider culturally-based differences in environmental perspective. On the one hand it is a region in which the activities of both Indigenous people and immigrant settlers are well documented; on the other, at the time of settlement wetlands were a common feature in the immediate vicinity. Indeed, much of the surface in the general area was covered by swamps and lagoons.

The specific location chosen for a settlement by Europeans in the Port Phillip area in 1835 was determined largely by the presence of a reliable source of potable water — the Yarra River (Presland 2008). An area on the northern bank of the river, adjacent to a rocky bar that was the limit of tidal reach, represented the most suitable site available for settlement, lightly timbered and sufficiently raised above the flood level. On a visit to the settlement in March 1836 Governor Richard Bourke described it as 'a beautiful and convenient site' (Bourke 1981: 101). As the town grew in size and importance, however, some features of the landscape came to be seen as less than convenient. In the early years of settlement a number of large water-laden swampy areas, adjacent to the river and in its estuary, had virtually determined the shape and spread of the expanding township (Fig. 1). But as Melbourne's population grew and the urban centre began to be transformed into a major mercantile hub, these areas increasingly posed problems for future commercial expansion, and also for the health of the increasing population.

For perhaps thousands of years before the arrival of Europeans, the site of Melbourne and its surrounding area had also presented a convenient place for major gatherings of the Indigenous population. Members of the two local language groups, *Woi wurrung* and *Boon wurrung*, were part of the Eastern Kulin nation, an interconnected cultural bloc of language groups that occupied the area of central Victoria, from the Murray River to Bass Strait (Barwick 1985). At regular intervals people from many Kulin clans had gathered in their hundreds in the very area that was to become the site of European settlement. Such meetings were not uncommon across Aboriginal Australia but all relied on the availability of sufficient resources to support such unusually large numbers for a period of three to four weeks. At the top of Port Phillip Bay those resources were to be found in the same numerous and extensive wetlands that were subsequently viewed with disfavour by the European settlers.

Kulin country

At the time of European settlement south of the Murray River, the central part of what is now Victoria comprised the collective estates of Aboriginal clans that formed the Eastern Kulin language groups. The Kulin Nation was made up of 22 clans, members of which were closely connected by kin, thought and tongue (Barwick 1985; Clark 1990; Presland 2010).

Within the Kulin world every individual was connected, by family and spiritual bonds, with members of clans whose estates were some distance away. These relationships, developed by marriage ties and shared beliefs, needed to be affirmed and confirmed through regular meetings of the clans concerned. Such meetings were occasions to create and re-create alliances and connections to kin and clan; to settle disputes; to exchange goods; and to conduct the necessary business of their world. Because they involved people from across the whole of the Kulin world, these periodic gatherings brought together hundreds of individuals normally resident in estates as far apart as the Yarra River and the lower reaches of the Goulburn River as much as 200 kilometres distant.

The places within the collective Kulin territory at which clans gathered were time-honoured and generally areas of abundant seasonal resources. By an unfortunate chance, one of these localities was the area where Europeans first established themselves in 1835, the area that was to become the township of Melbourne.

Whenever Kulin clans gathered in the region of the Yarra River ahead of a series of meetings, each group set up camp in a particular location, favoured by tradition. In each case the preferred area was adjacent to an extensive wetland. Thus *Watha wurrung* speakers from the Bellarine Peninsula and further west generally camped on the rising ground at the western end of what is now Lonsdale Street, an area that overlooked West Melbourne Swamp. Members of the *Daung wurrung* speaking clans, approaching the Bay from the Goulburn River area, camped to the north of the river, in the area now called Clifton Hill. The *Boon wurrung* took up their customary position in the high ground of the future Botanic Gardens, adjacent to a large billabong on the Yarra; and the *Woi wurrung* set up in the area that would one day include the MCG, from where they had ready access to a number of wetlands along the northern bank of the Yarra.

While these various wetlands were the mainstays of the Kulin world at times of major

Fig. 1. 1863 chart of the estuary of the Yarra and Maribyrnong Rivers, showing locations of wetlands.

meetings, a number of other wetlands a little further from the river also figured in the traditional seasonal round of local clans. For example, a large area on the southern side of the Yarra estuary, in what is now Port Melbourne, Albert Park, Middle Park and the major part of South Melbourne, was low-lying and consisted of a boggy marshland. This area included a couple of sometimes-connected lagoons that subsequently formed the basis of Albert Park Lake. This and the other swampy areas provided a wide range of seasonally-available resources for the *Yalukit willam* clan of *Boon wurrung*, as did an extensive freshwater wetland in the Elwood area further south along the shore of Port Phillip Bay.

Ecologically, these areas were highly productive and thus the haunt of abundant birdlife (Corrick 1981). At the right time of year—from late spring through to early autumn—the wetlands were favoured spots for the local clans. How productive these areas were can be gauged from an early European description of West Melbourne swamp. Mattingley (1916: 85), writing in the context of what had been lost in the making of North Melbourne, described the swamp in the following terms:

> on the waters of a large marsh or swamp graceful swans, pelicans, geese, black, brown and grey ducks, teal, cormorants, water hen, sea gulls ... disported themselves, while curlews, spur winged plover, cranes, snipe, sandpipers and dotterels either waded in the shallows or ran along its margin, and quail and stone plover ... were very plentiful ... eels, trout, perch inhabited its waters.

Add to this animal abundance a plant regime consisting of dozens of useful plants and it is not difficult to see why it was an attractive place to the Indigenous people. Such areas have been likened by some (e.g. Department of Conservation 2003; Bataluk Cultural Trail 2013) to

contemporary supermarkets. Given the range and variety of resources available in a relatively small area this may be a helpful simile. But if we want to continue with this analogy we should perhaps also refer to wetlands as pharmacies and hardware stores, since a number of plants found in such localities were used for purposes other than food. While many plants have parts that can be eaten—rhizomes, flowers, bulbs, tubers and seeds—often, the same species have other parts that can be put to a range of uses. For example, while Cumbungi (*Typha* sp.) was a major food source in the Melbourne area, its leaves and fronds, when dried, could be split into thin lengths for weaving baskets, or making nets and items of personal adornment (Gott 1999; Zola and Gott 1992). Further, a number of aquatic plant species, such as Marsh watercress *Rorippa palustris* and River clubrush *Schoenoplectus tabernaemontani* were gathered, when needed, for their medicinal properties (Lassak and McCarthy 2011).

Settler views of wetlands

Where Kulin clans saw natural provision, white settlers viewed with some disquiet what most saw as unproductive swamps, areas of little value. More tellingly, they saw these elements of the natural world as something that could be amended. For many, the Biblical injunction in Genesis 1:28 to 'subdue the earth' was to be taken literally; indeed, many Europeans took it as the role of humans to improve upon what God had made (Coleman 1996).

Initially, because the wetlands around the settlement were of no practical use to the immigrants, they could be ignored. Although the town quickly achieved city status, its development, particularly on the southern side of the river, was relatively slow. Here a collection of smaller urban areas occupied the higher ground that surrounded the low-lying wetlands (Fig. 1). But following the discovery of gold in Victoria in 1852, Melbourne grew rapidly in size and importance, and attention became increasingly focused on those wetlands. Two concerns were paramount regarding the presence and location of these areas: the health hazard they posed to nearby residents; and the impediments they had become to urban and industrial development.

The former concern stemmed in large part from the prevailing view of the spread of disease. It was a common belief in European society, first voiced by the ancient Greeks and reinforced during the Middle Ages as a result of the widespread occurrence of the plague, that diseases such as cholera and malaria derived from bad air emanating from swamps. From early in the 18th century onwards this belief came to be called the miasma theory. It held sway well into the 1860s, until disproved by John Snow in London, at about the same time that (independently) Louis Pasteur and other researchers demonstrated that germs, not foul air, were the principal agents in the spread of disease (Giblett 1996; Halliday 2001). In Melbourne, the influence of miasma theory continued to be felt for some time. A proposal by John Watson (reported in *The Argus* of 10 February 1866) to drain West Melbourne Swamp suggested that such action would diminish 'the risk of epidemic by destroying what is now a copious source of miasma'.

Over and above their belief that marshes and swamps were the sources of disease, for many of Melbourne's residents these areas were places of little regard. The prevailing attitude to such features is clear from the way in which the wetlands of inner Melbourne were misused. By the mid 1870s, Sandridge Lagoon, for example, had become a cesspit, filled with dumped rubbish, and sewage from adjacent councils (Buckrich 2002). Although such blatantly insanitary use of wetlands only contributed to the threat to public health, it was difficult putting a stop to it. The usual means of policing the regulations set out in legislation were generally inadequate (Dunstan 1984). More than 20 years later, although drainage into Sandridge Lagoon from surrounding areas had been improved, manure from thousands of horses docked nearby was being dumped into the water of the remaining part of the Lagoon (U'ren and Turnbull 1983).

The parlous state of Sandridge Lagoon was mirrored by most of the wetlands within the Yarra's estuary; it was a function of the low esteem with which such areas were regarded, and the fact that they had been neglected for decades. This was easy to do when there was no pressure to make use of the areas. By the early

1870s, however, there was a push for more urban and industrial development close to the city, and the low-lying areas that were previously ignored by governments became the subject of a Royal Commission on the Low Lands (Dunstan 1985).

The Commission was an indication of the growing concern that had arisen within the city regarding wetlands and their future. The enquiry became the first step in a lengthy process of improving those areas that had to date been not worth worrying about. Wetlands that were being encroached on by urban development were seen now as potential impediments to the expansion of further industry or housing. In the succeeding 30 years the landscape of Melbourne was changed dramatically, as all of the wetlands were drained, or transformed into an amenable form. The result of these endeavours takes a number of forms, varying according to the location of each area and a range of determining social factors. These elements are detailed briefly in the remainder of this paper, along with the means and methods employed in the process of creating a desirable urban landscape.

The reclamation of swamps

In the period from the mid 1870s through to the earliest years of the 20th century almost all of the swampy areas within a two kilometre radius of central Melbourne were reclaimed. About a dozen wetlands were affected, all within the combined estuary of the Yarra and Maribyrnong Rivers, or along the Yarra itself. With a few exceptions, nothing now remains to indicate the former presence of any of these wetlands. In three cases, however, although the wetlands are long gone there are hints that point to the fact that they were once part of the Kulin world. The fate of these three features, plus that of the largest of the swamps in the inner Melbourne area, are considered here, and used as examples of the range of outcomes achieved as a result of European exploitation of the Port Phillip environment.

West Melbourne Swamp

This swamp lay on the northern side of the Yarra within the estuary of the river, immediately to the west of the settlement. At about 30 hectares, it was the largest wetland in close proximity to the settlement (Presland 2011). Because of its proximity to Batman's Hill, this wetland was often called Batman's Swamp. In the early years of the settlement it was seen by a young boy as an attractive feature in the landscape. About 70 years later Gordon McCrae (1912: 117) wrote in glowing terms of what had he had seen in the 1840s but had long since disappeared:

> ... stretching away from the base of the Flag-staff Hill, lay a beautiful blue lake ... a real lake, intensely blue, nearly oval, and full of the clearest salt water; but this by no means deep. Fringed gaily all round by mesembryanthemum (*vulgo*, "pig's face") in full bloom, it seemed in the broad sunshine as though girdled about with a belt of magenta fire.

Most of the area in this part of the estuary was covered by a Brackish Grassland (EVC 934)[2] that was subject to tidal inundation and regular flooding. This grassland enclosed a Brackish Lake Aggregate (EVC 636), which was rimmed by an area of Coastal Saltmarsh (EVC 9).

Away from the edge of the saltmarsh the ground surface of the surrounding grasslands was firm enough to be used as the venue for the first race meeting in the settlement. This took place on 8 February 1837 (Boys 1959).

Although plans to drain the swamp had been made as early as 1849 (*The Argus* 24 April 1849: 2), little work actually took place before the late 1870s. Through the 1850s and 60s a part of the area was given over to cow-herders, and boiling down works and a bone mill were established along the river on the southern portion of the wetland. There were periodic complaints over many years about the offensive smells from the fellmongery and boiling-down works (*The Argus* 13 September 1864: 7) and the stench of liquid mud in the swamp (*The Argus* 5 June 1871: 4). Pollution was also coming into the Swamp from tannery yards in Flemington, via Moonee Ponds Creek (Lack 1985). The fact that an area of several acres of the north eastern corner of the wetland continued to be used as a refuse depot into the 1890s, did nothing for the cause of clean air or a healthy environment (Dunstan 1984).

The biggest impetus to the reclamation of West Melbourne Swamp was the creation of a Harbor Trust in 1877. Although the area was

not within the jurisdiction of the Trust (Buckrich 2002), it was soon impacted by the Trust's primary purpose, which was to plan the improvement of Melbourne's port facilities (Dunstan 1984). One of the earliest actions of the Trust was to engage an English engineer, Sir John Coode, to advise on how to solve the associated problems of Melbourne's narrow and circuitous river and a lack of adequate docking facilities (Bentley and Dunstan 1996). Coode's scheme, when put into effect, shortened the river by about 1500 metres and led to the use of a part of the wetlands for the new Victoria Dock. The Coode canal opened in September 1886 and the docks in 1893. The reclamation of the swamp was still going on in 1905 when the Melbourne Harbor Trust established a depot in the old stream bed of the Yarra to store material it had dredged from the Bay, for use in raising the level of the West Melbourne Swamp. (Melbourne Harbor Trust 1905).

Today the area formerly covered by West Melbourne Swamp contains a number of urban features of comparatively recent construction, including the Docklands Precinct; the extension of Moonee Ponds (constructed in the early 1890s to facilitate the barging of coal to ships moored in Victoria Dock); the Melbourne Freight Terminal; and Melbourne Wholesale Fruit and Vegetable Market.

Sandridge Lagoon

During its survey of the perimeter of Port Phillip Bay in 1803 the Grimes exploratory party 'came to a salt lagoon about a mile long and a quarter of a mile wide; had not entrance to the sea' (Flemming 1972: 27). Following settlement in 1835 and the subsequent development of a village adjacent to the sand ridge on the shore line, this feature—possibly a remnant of a former course of the Yarra—became known as Sandridge Lagoon. (Fig. 2) Because of its shape and closeness to the Bay, in the earliest period of the urban development of Sandridge (later Port Melbourne) the lagoon was a defining and determining feature of settlement in the immediate area (U'Ren and Turnbull 1983).

During times of flood the lagoon filled through runoff from the surrounding area, and sometimes (as in December 1849) the water broke through to the Bay (*The Argus*, 4 December 1849: 2). This passage through the sand ridge allowed small boats to find shelter in the lagoon but this was usually a temporary thing. With an entrance to the Bay, the water level within the lagoon was subject to tidal influence; at times of high tide the extent of the lagoon could be a much as 27 acres (U'Ren and Turnbull 1983).

Fig. 2. Detail of the 1863 Cox chart, showing the location and extent of Sandridge Lagoon.

By the mid 1860s pollution in the Lagoon had begun to be a concern to residents. The Sandridge Council felt that a channel cut from the Lagoon into the Bay would solve the issue of accumulated pollution, much of which, it was recognised, came as run-off from Emerald Hill (U'Ren and Turnbull 1983). As well as the health issues raised by the presence of noxious material in the Lagoon, the area posed a danger to people who accidently wandered into the marsh. In November 1869, two men drowned in the Lagoon in the space of as many days. But while these and other human bodies were always removed from the water, such was apparently not the case with goats and dogs that drowned there (*The Record and Emerald Hill and Sandridge Advertiser*, 19 November 1875: 3).

There had been repeated calls since 1854 for a dock and harbour to be created in the lagoon (*The Argus* 16 March 1854: 5), with little progress to that end. In 1869 Sandridge Council offered a prize of £100 for the best and cheapest solution to the unsanitary condition of the lagoon (U'Ren and Turnbull 1983). This

produced no workable scheme and by 1879 the only change to the lagoon was that the northern end had been filled in as far as Bridge Street; the rest was still something of a cesspit. With the creation of the Melbourne Harbor Trust in 1877, the lagoon became a political football, its fate bouncing around between the Trust, the colonial administration and the Councils of Sandridge and neighbouring Emerald Hill. In July 1886 an agreement was reached between the players that saw the lagoon mouth opened to the Bay as far as Graham Street and drainage from streets diverted away from that portion (Hoare 1927).

Pollution continued to flow into the lagoon, however, and in 1890 a pumping station was constructed to pump the sewage and drainage past the lagoon to assist in keeping it clear (U'Ren and Turnbull 1983). This had limited success but ultimately contributed to the shoaling of the small harbour (Hoare 1927).

In 1921 a breakwater was built adjacent to the outlet of the lagoon, providing shelter for small vessels. The lagoon was thus made redundant and was finally closed (Hoare 1927). The only easily visible clue to the previous existence of the lagoon is the appropriately-named Lagoon Reserve, which lies between two of Port Melbourne's streets that are suggestively named Esplanade East and Esplanade West.

Albert Park

Albert Park is perhaps best known today as the venue of the Australian Formula 1 Grand Prix, staged around the perimeter of the Albert Park Lake. That the area still exists as a public reserve, albeit one that is annually given over to well-heeled people with fast cars, when most other similar areas in the inner city have been given over to urban or industrial use, is interesting in itself.

On Robert Hoddle's map of North and South Melbourne in 1842, the area of Albert Park was shown as containing not one piece of water, but several swampy water-holes with a bordering of teatree (*Leptospermum* sp.) (Sutton 1912). The vegetation in these perennially wet areas comprised Brackish Lake Aggregate (EVC 636), which was enclosed by Brackish Wetland (EVC 656). Perhaps because it was an open area and there was little urban development in the vicinity, it had an appeal not normally accorded to other wetlands. Late in 1844 a petition was made by the Melbourne City Council to the Lieutenant Governor, CJ La Trobe, to have an area south of the Yarra set aside as a public park.

Nothing happened immediately but the area was permanently reserved by the government in 1864 and given the name Albert Park, to commemorate the recently-deceased Consort of Queen Victoria (Barnard and Keating 1996). Previously, the area was known as South Park and was administered by the adjacent Emerald Hill and St Kilda councils.

Albert Park was destined to be a public park, so the lagoons were transformed into a permanent lake, rather than being drained as was done in other wetland areas. The impetus to create this lake was twofold: firstly it was a way of dealing with the increasingly unhealthy state of the swamps; and secondly it was intended to create a place where boating activities could be pursued. The two major lagoon areas were deepened and joined to make the lake. It was found, however, that over the summer months the water level in the lake became too low for sailing. Boating enthusiasts petitioned parliament and from 1877 until 1892 the level was kept topped up by piping water from the Yarra River via a steam pump installed in the Domain (Lamb 1996). This pump was superseded in 1892 by a newer installation at Dights' Falls, and was the same that supplied fresh water to the Botanic Gardens, over the same period.

By the latter part of the 1870s, although all the land between the park and St Kilda Road was in private hands (Barnard and Keating 1996), the park itself was reserved for public use in essentially the form it retains today.

Yarra River Lagoon

In March 1846, when CJ La Trobe selected a site for Melbourne's Botanic Gardens, the area he chose on the south side of the Yarra River was an 'indefinite swampy tract' (Gross 1956: 76). The major feature of the area was a billabong, which was connected to the Yarra River (Fig. 3). Unlike the Sandridge Lagoon and other swamps within the estuary of the river, this was a freshwater lagoon, rejuvenated through periodic flooding from the Yarra River. The

Fig. 3. Detail of the 1863 Cox chart, showing the location and extent of Yarra River lagoon.

vegetation within the billabong was that of a Reed Swamp (EVC 300).

Between 1837 and 1841, Langhorne's Anglican mission had operated immediately to the east of the chosen site, to take advantage of the regular gatherings of *Boon wurrung* who made use of the lagoon (Cannon 1982; Pescott 1982). In addition to a range of plant resources the lagoon was noted for its abundant birdlife. A count in the mid-1850s listed 63 land- and 19 water species of birds (Wilson 1857). Because it was connected to the river, the lagoon also held a regular supply of eels and other fish species. Eels were taken by Aboriginal men using spears, the hunter having detected their presence while wading in the water. George Robinson recorded in his journal (29 January 1841) seeing two Aborigines catch about forty pounds (18.2 kg) of eels in a very short time.

As the lagoon was connected to the river it was prone to flooding, but from the beginning it was incorporated into the general plan of the Gardens. It was subject also to silting up through run-off from the adjacent slope; as a result it needed to be deepened in 1850 (Pescott 1982). Ferdinand Mueller, who was appointed Director of the Gardens in August 1857, left it essentially unchanged except for the installation of a fountain on an island in the lagoon. His successor William Guilfoyle developed the area in ways that eventually led to its becoming a lake. The lagoon was to be deepened again, the height of one of its islands was raised, and the lagoon's edges were shaped (Pescott 1974). Although the work to give effect to these plans was begun in the late 1870s it was delayed and spread over a couple of decades through government work on the river itself. Much of the surface along the southern side of the river in this area, including parts of the Gardens, was low-lying and subject to inundation when the river rose. A government enquiry recommended the straightening of the river in the stretch adjacent to the Gardens. This led to the passing of the *Yarra Improvement Act* 1896 and, in turn to the carrying out of 'improvements' to the river. These were completed in 1901, breaking the nexus between the lagoon and the river, since when it has effectively become a lake (Pescott 1974).

Conclusion

The area at the top of Port Phillip Bay, chosen as the site of European settlement, was one that contained a number of wetlands. For the local Kulin clans these places were essential sources of a wide range of foodstuffs and materials; for the immigrant settlers they were generally disregarded as places of little economic or social value and increasingly used as dumping grounds. Such contrary views of these wetlands reflected the nature of the connection each group had with its physical environments. Notwithstanding this disparity, however, these landscape features can be seen as a significant factor in the local history of both groups.

The enduring presence of Europeans across Victoria ultimately spelt the end of a way of life for the Indigenous people. In the area of Melbourne, as increasing numbers of whites settled so more and more were Aboriginal people excluded from the areas that had sustained them over thousands of years. The wetlands of the Port Phillip region had been a significant resource base during the customary seasonal round. Of greater importance, the presence of these wetlands had supported the regular meetings of clans from across the entire territory of the Kulin. These gatherings were an essential

element in maintaining the Kulin world, providing opportunities for a range of necessary activities such as exchange of marriage partners and the enacting of religious and initiatory ceremonies. Denial of access to these areas of abundant resources was thus a blow against not only the material underpinnings of the Kulin world but also against its spiritual and conceptual bases. The exclusion of Aboriginal people was a major factor in the collapse of local Indigenous culture.

The rapid expansion of the city during the 1850s following the discovery of gold put enormous pressure on the wetlands areas around Melbourne. On the one hand decades of neglect had allowed many of these areas to become the repositories of sewage and waste; on the other, the location of some of them was pivotal in the future development of Melbourne's shipping facilities and urban expansion. Europeans beliefs regarding nature in general, and the character of swamps in particular, lead to these areas becoming a focus of attention in efforts to create a landscape that was amenable to the commercial and cultural interests of the city. Significant parts of the inner Melbourne area have been shaped as a result of the countermeasures enacted to achieve these ends.

Although many of the wetland areas in the inner Melbourne area were drained and filled in to be completely lost to view, a few were transformed and continue to have a presence in the urban environment. Of the four wetland areas considered here, ultimately three were turned into areas of public access and recreation. Today they survive as markers of a past, but not-quite-forgotten, landscape form. It could be argued too, that despite the vastly different ways in which wetlands were appreciated and used by the immigrant population, in some fundamental sense these same areas continue to function as they did before settlement. For example, today when large numbers of people get together at Etihad Stadium, to take part in social or ritual activity, it should be remembered that the stadium is located close to where West Melbourne Swamp once stretched. And that in Aboriginal times large numbers of people also gathered there, for not entirely dissimilar purposes (Presland 2002). The swamps of Melbourne may be gone but, in effect, something of their social function remains.

Notes

[1] While distinctions (based on various analyses) can be drawn within a range of landscape features, variously referred to as 'fens', 'marshes', 'swamps', and 'aquatic wetlands' (see for eg. Corrick 1981; Greb and DiMichele 2006), in this paper the more general terms 'wetland' and 'swamp' are used throughout. Both of these terms are taken to refer to 'any area of low-lying land where the water table is at or near the surface most of the time, resulting in open-water habitats and waterlogged land areas' (Jones *et al.* 1992: 441).

[2] Three of the four wetlands examined in this paper—West Melbourne Swamp, Albert Park and the Yarra Billabong—have been categorised within the system of Ecological Vegetation Classes (EVCs) devised by Oates and Taranto (2001). The terms used to describe the vegetation in these wetlands is drawn from that work.

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One Hundred and Two Years Ago

EXCURSION TO COODE ISLAND.

By C. FRENCH, JUN., AND J. R. TOVEY

INTERESTED by the remarks on the flora, &c, of Coode Island in the Naturalist for July last (Vict. Nat., xxviii., p. 57), a party of eighteen boarded the motor boat at Queen's Bridge on Saturday afternoon, 23rd March, en route to the island. Shortly after arrival there two more members joined the party. All expressed surprise at the large amount of foreign vegetation that was growing there. It was noted that most of the plants found flowering there during previous trips made by the leaders in such periods of former years as October to December, also June, were found in flower, thus evidently showing that the exotic plants had not as yet settled down to our seasons. It was also pointed out that, whilst the foreign shells collected there were mostly of North American origin, the plants were mostly South African, and in a few instances European or Asiatic, but none of North American origin, thus showing that the North American ballast came from the seashore, and that from South Africa apparently from further inland.

About twelve plants which are either recognized as native or naturalized aliens in other parts of the State, but not previously recorded for the island, were collected. Amongst these might be mentioned a variegated form of the Red Goosefoot, *Chenopodium rubrum*, L., and the Caltrops, *Tribulus terrestris*, L. Four species not previously recorded as introduced in Victoria were obtained—*i.e.*, *Mercurialis annua*, L., Annual Dog's Mercury, Euphorbiaceae; a native of Europe and North Africa. *Aizoon rigidum*, L., var. *angustifolium*, Sond., Rigid Aizoon, Ficoideae; indigenous to South Africa. *Hermannia velutina*, D.C., Velvet Hermannia, Sterculiacess; another stranger from South Africa. *Abutilon indicum*, Sweet., Indian Lantern-flower, Malvaceae; a native of the tropical regions, also found in South Africa.

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